



May 01, 2017

Public Health Preparedness and Situational Awareness Report: #2017:16 Reporting for the week ending 4/22/17 (MMWR Week #16)

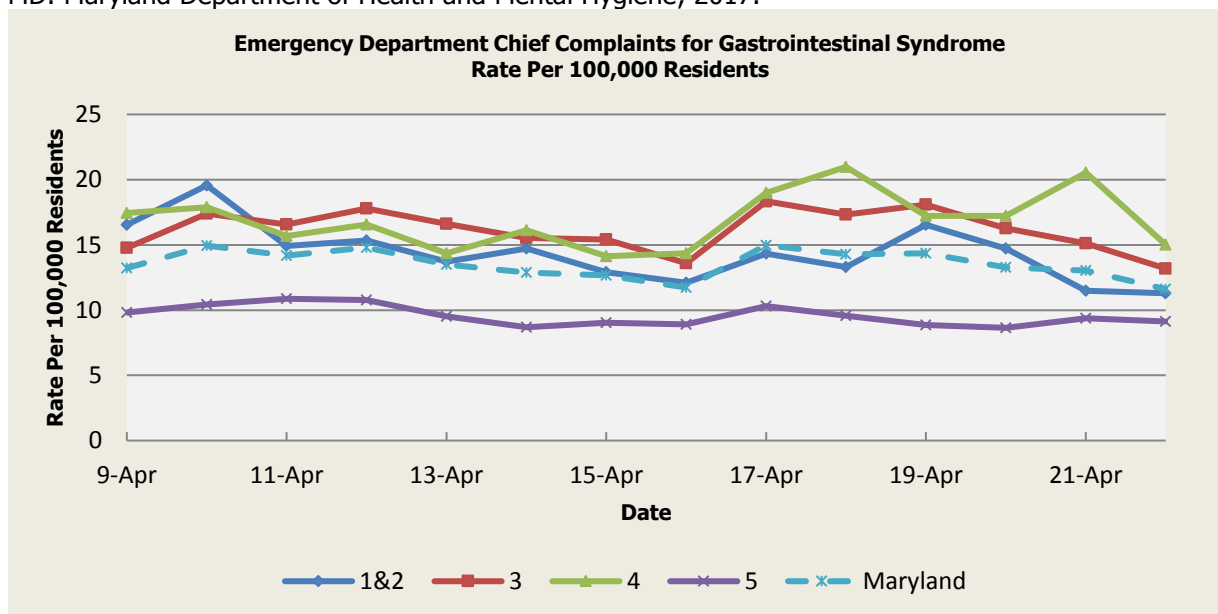
CURRENT HOMELAND SECURITY THREAT LEVELS

National: No Active Alerts

Maryland: Level Four (MEMA status)

SYNDROMIC SURVEILLANCE REPORTS

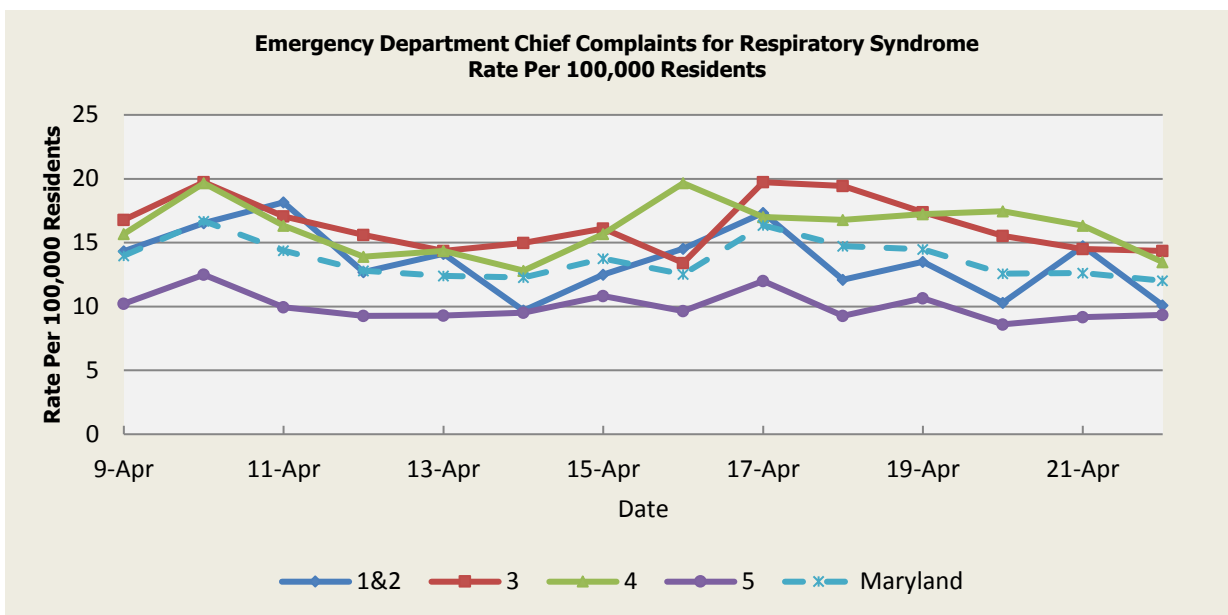
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics): Graphical representation is provided for all syndromes (excluding the "Other" category; see Appendix 1) by Health and Medical Regions (See Appendix 2). Emergency department chief complaint data is presented as rates per 100,000 residents using data from the 2010 census. Electronic Surveillance System for the Early Notification of Community-Based Epidemics (ESSENCE). Baltimore, MD: Maryland Department of Health and Mental Hygiene; 2017.



There were two (2) Gastroenteritis outbreaks reported this week: one (1) outbreak of Gastroenteritis/Foodborne associated with a Restaurant (Region 4); one (1) outbreak of Gastroenteritis/Foodborne associated with a Private Home (Region 3).

Gastrointestinal Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	12.95	15.15	15.48	10.33	13.15
Median Rate*	12.91	14.80	15.02	10.22	12.95

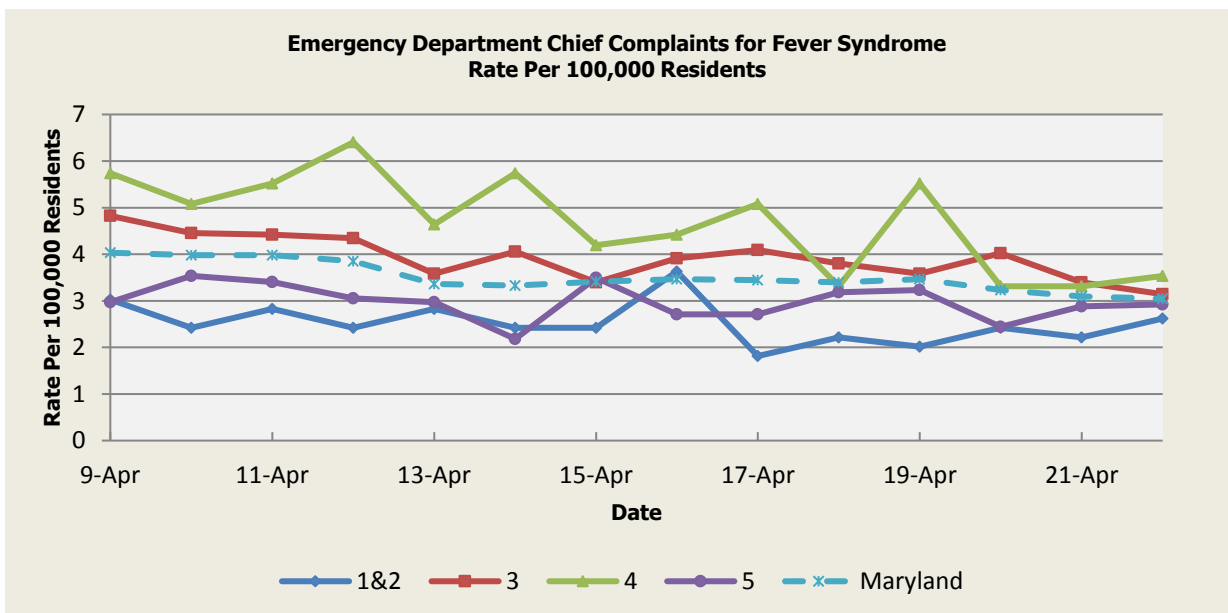
* Per 100,000 Residents



There were three (3) Respiratory illness outbreaks reported this week: one (1) outbreak of Influenza at a Residential Center (Regions 1&2); one (1) outbreak of Influenza in a Nursing Home (Regions 1&2); one (1) outbreak of Influenza/Pneumonia in an Assisted Living Facility (Region 3).

Respiratory Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	12.08	14.49	14.39	9.99	12.56
Median Rate*	11.70	13.88	13.91	9.65	12.05

* Per 100,000 Residents

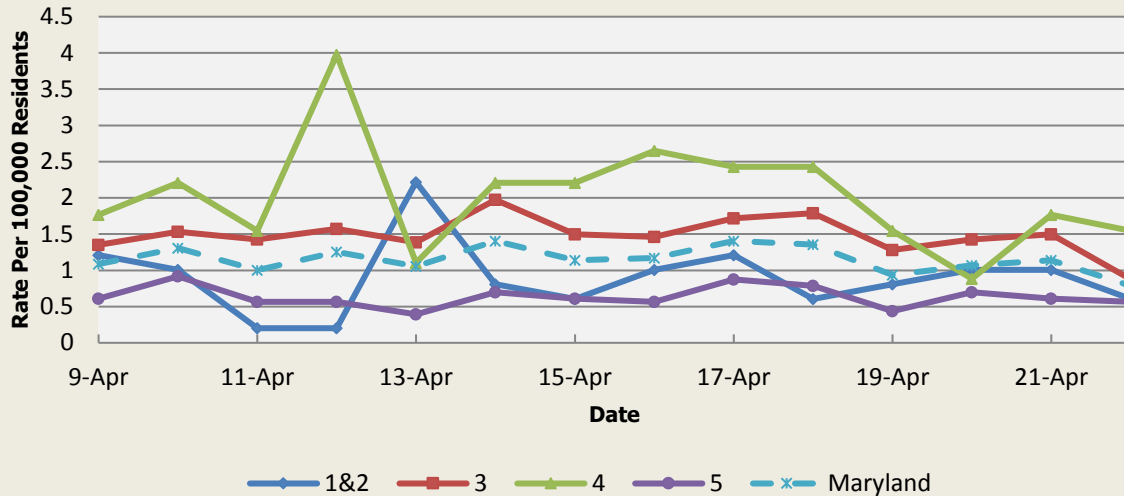


There were no fever outbreaks reported this week.

Fever Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.04	3.88	3.99	3.09	3.52
Median Rate*	2.82	3.76	3.75	2.97	3.40

Per 100,000 Residents

Emergency Department Chief Complaints for Localized Lesion Syndrome Rate Per 100,000 Residents



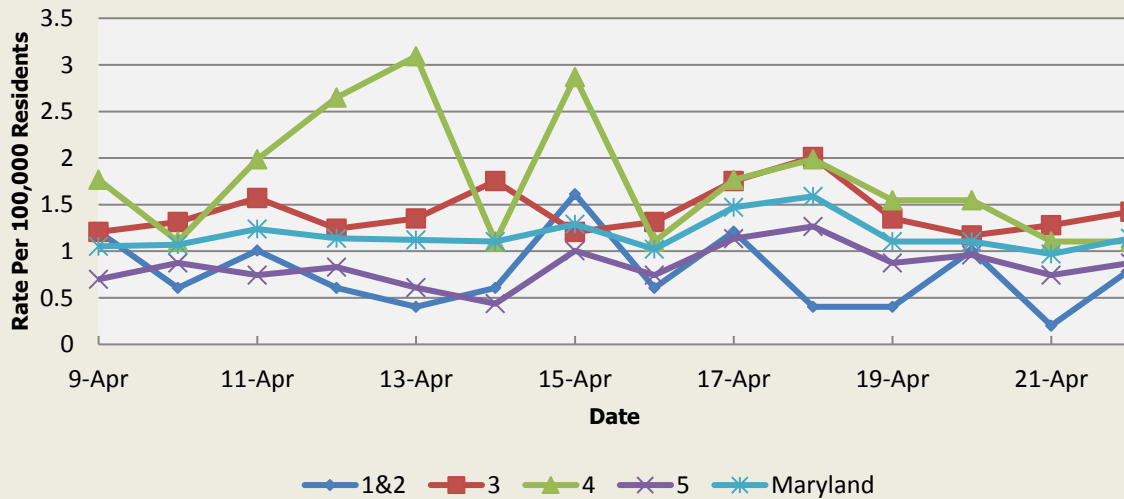
There were no localized lesion outbreaks reported this week.

Localized Lesion Syndrome Baseline Data January 1, 2010 - Present

Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.05	1.90	2.03	0.96	1.48
Median Rate*	1.01	1.83	1.99	0.92	1.42

* Per 100,000 Residents

Emergency Department Chief Complaints for Rash Syndrome Rate Per 100,000 Residents



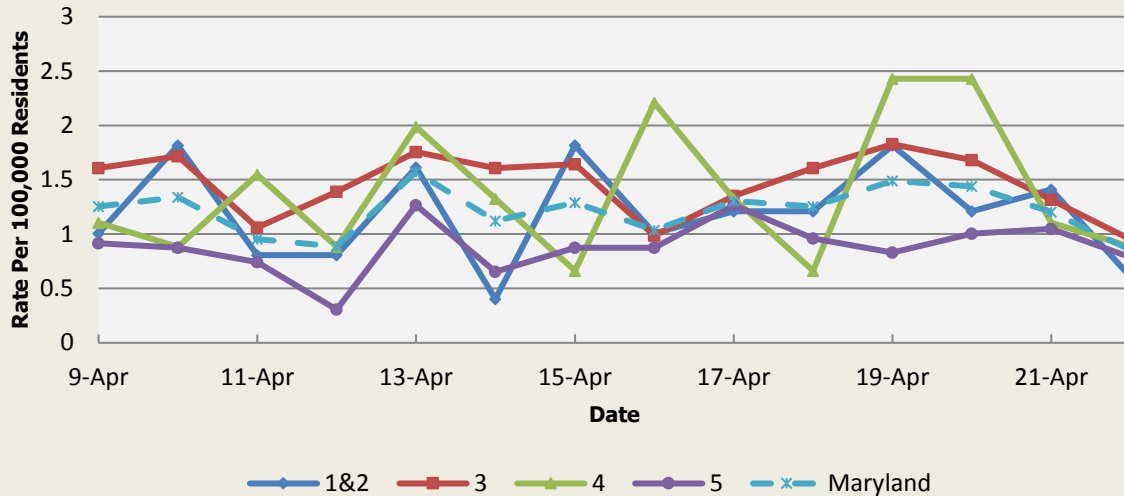
There was one (1) Rash illness outbreak reported this week: one (1) outbreak of Hand, Foot, and Mouth Disease associated with a Daycare Center (Region 4).

Rash Syndrome Baseline Data January 1, 2010 - Present

Health Region	1&2	3	4	5	Maryland
Mean Rate*	12.08	14.49	14.39	9.99	12.56
Median Rate*	11.70	13.88	13.91	9.65	12.05

* Per 100,000 Residents

Emergency Department Chief Complaints for Neurological Syndrome Rate Per 100,000 Residents



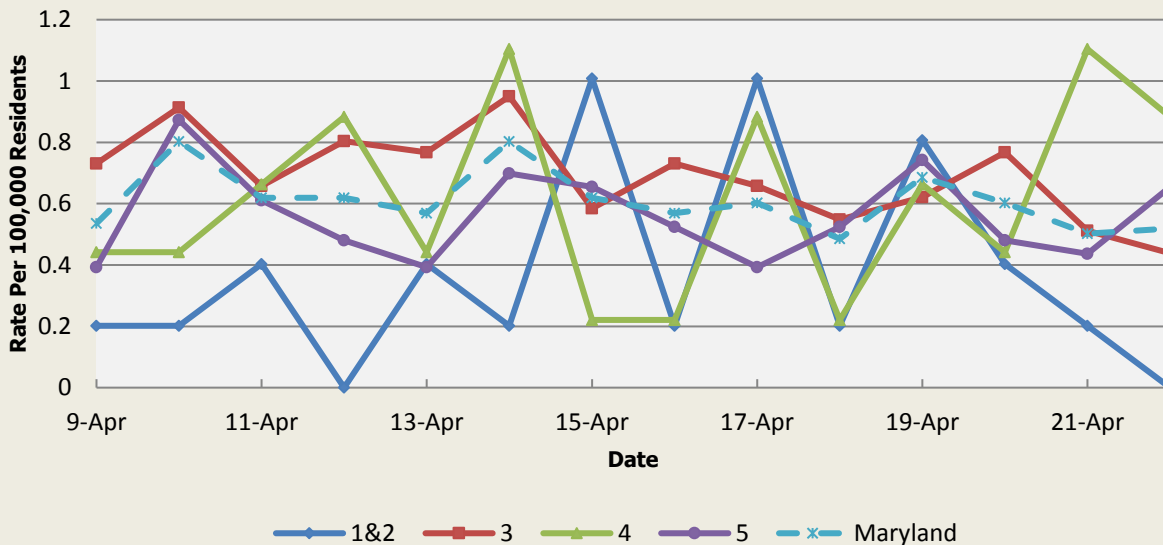
There were no neurological syndrome outbreaks reported this week.

Neurological Syndrome Baseline Data January 1, 2010 - Present

Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.65	0.80	0.69	0.51	0.67
Median Rate*	0.60	0.69	0.66	0.48	0.59

* Per 100,000 Residents

Emergency Department Chief Complaints for Severe Illness or Death Syndrome Rate Per 100,000 Residents



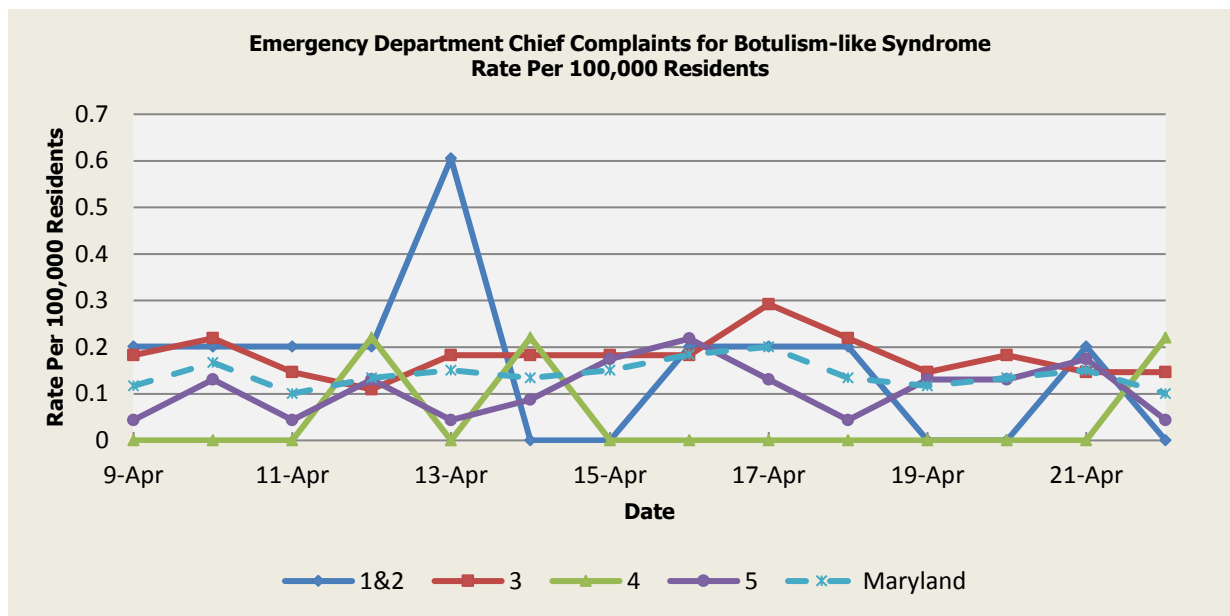
There were no severe illness or death outbreaks reported this week.

Severe Illness or Death Syndrome Baseline Data January 1, 2010 - Present

Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.65	0.92	0.81	0.46	0.72
Median Rate*	0.60	0.91	0.66	0.44	0.70

* Per 100,000 Residents

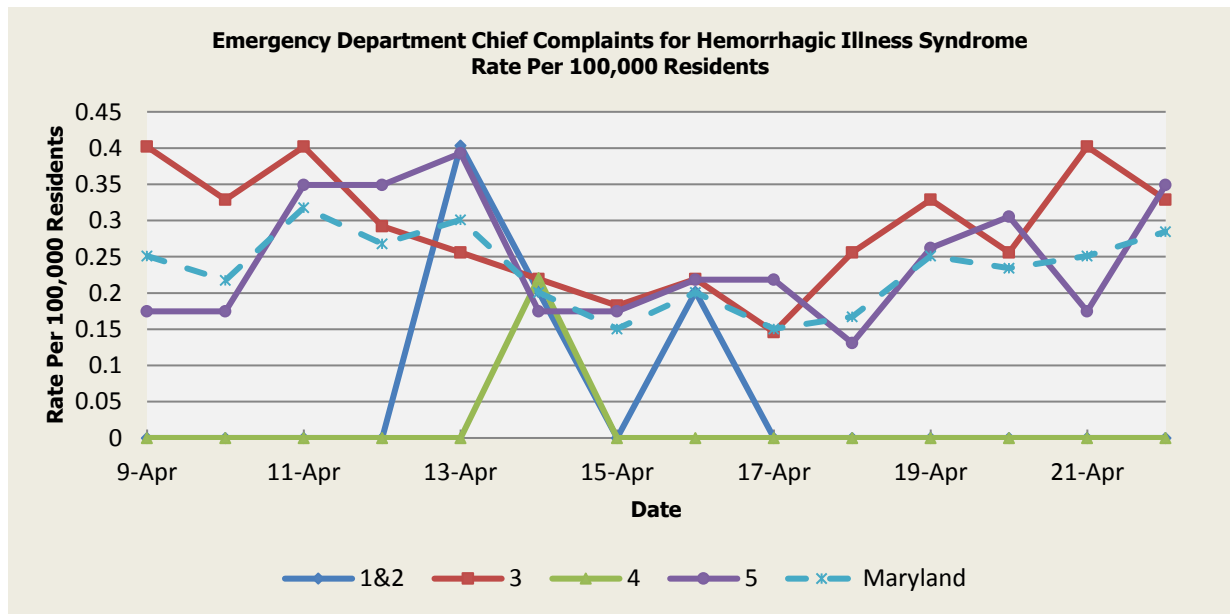
SYNDROMES RELATED TO CATEGORY A AGENTS



There was an appreciable increase above baseline in the rate of ED visits for Botulism-like Syndrome on 04/09 (Regions 1&2), 04/10 (Regions 1&2,3,5), 04/11 (Regions 1&2), 04/12 (Regions 1&2,4,5), 04/13 (Regions 1&2), 04/14 (Region 4), 04/15 (Region 5), 04/16 (Regions 1&2,5), 04/17 (Regions 1&2,3,5), 04/18 (Regions 1&2,3), 04/19 (Region 5), 04/20 (Region 5), 04/21 (Regions 1&2,5), 04/22 (Region 4). These increases are not known to be associated with any outbreaks.

Botulism-like Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.07	0.10	0.04	0.06	0.07
Median Rate*	0.00	0.07	0.00	0.04	0.05

* Per 100,000 Residents

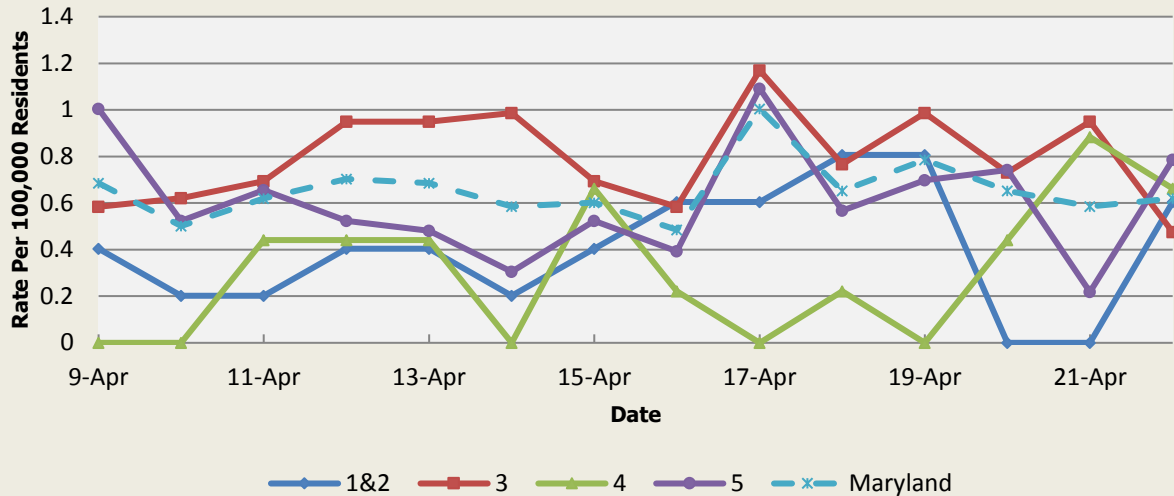


There was an appreciable increase above baseline in the rate of ED visits for Hemorrhagic Illness Syndrome on 04/09 (Region 3), 04/10 (Region 3), 04/11 (Region 3,4,5), 04/12 (Region 3,5), 04/13 (Regions 1&2,5), 04/14 (Regions 1&2,4), 04/16 (Regions 1&2,5), 04/17 (Region 5), 04/19 (Region 3,5), 04/20 (Region 5), 04/21 (Region 3), 04/22 (Region 3,5). These increases are not known to be associated with any outbreaks.

Hemorrhagic Illness Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.03	0.13	0.03	0.09	0.10
Median Rate*	0.00	0.04	0.00	0.04	0.05

* Per 100,000 Residents

**Emergency Department Chief Complaints for Lymphadenitis Syndrome
Rate Per 100,000 Residents**



There was an appreciable increase above baseline in the rate of ED visits for Lymphadenitis Syndrome on 04/09 (Region 5), 04/11 (Region 5), 04/17 (Regions 3,5), 04/18 (Regions 1&2), 04/19 (Regions 1&2,5), 04/20 (Region 5), 04/21 (Region 4), 04/22 (Region 5). These increases are not known to be associated with any outbreaks.

**Lymphadenitis Syndrome Baseline Data
January 1, 2010 - Present**

Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.31	0.53	0.35	0.32	0.42
Median Rate*	0.20	0.40	0.22	0.26	0.33

* Per 100,000 Residents

MARYLAND REPORTABLE DISEASE SURVEILLANCE

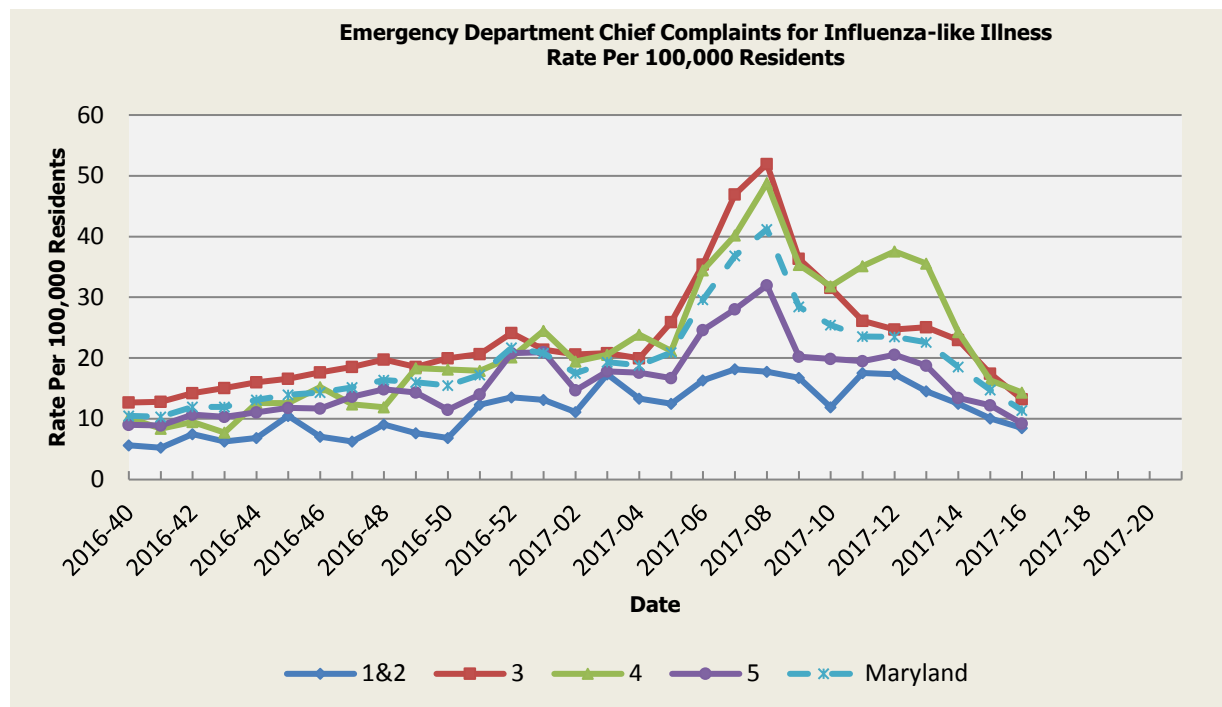
Condition	Counts of Reported Cases†					
	April			Cumulative (Year to Date)**		
Vaccine-Preventable Diseases	2017	Mean*	Median*	2017	Mean*	Median*
Aseptic meningitis	7	23.6	26	41	105	102
Meningococcal disease	0	0	0	1	1.8	2
Measles	0	0	0	0	0	0
Mumps	0	9.2	0	2	17.6	0
Rubella	0	0.2	0	0	0.4	0
Pertussis	2	10.2	9	20	49	44
Foodborne Diseases	2017	Mean*	Median*	2017	Mean*	Median*
Salmonellosis	32	39.2	38	140	183.8	174
Shigellosis	12	10	11	55	57.6	56
Campylobacteriosis	26	38.2	36	165	160.4	165
Shiga toxin-producing Escherichia coli (STEC)	1	5	5	13	16.4	17
Listeriosis	1	0.8	1	6	2.6	3
Arboviral Diseases	2017	Mean*	Median*	2017	Mean*	Median*
West Nile Fever	0	0	0	0	0	0
Lyme Disease	13	63	59	154	237.2	223
Emerging Infectious Diseases	2017	Mean*	Median*	2017	Mean*	Median*
Chikungunya	0	0	0	0	0.2	0
Dengue Fever	0	1.2	1	0	4	3
Zika Virus***	0	0	0	0	2.8	0
Other	2017	Mean*	Median*	2017	Mean*	Median*
Legionellosis	1	3.2	3	19	22.4	24

NEDSS data: Maryland National Electronic Disease Surveillance System (NEDSS). Baltimore, MD: Maryland Department of Health and Mental Hygiene; 2017. † Counts are subject to change *Timeframe of 2011-2017**Includes January through current month.

*** As of April 26, 2017, the total Maryland Confirmed and Probable Cases of Zika Virus Disease and Infection is 189.

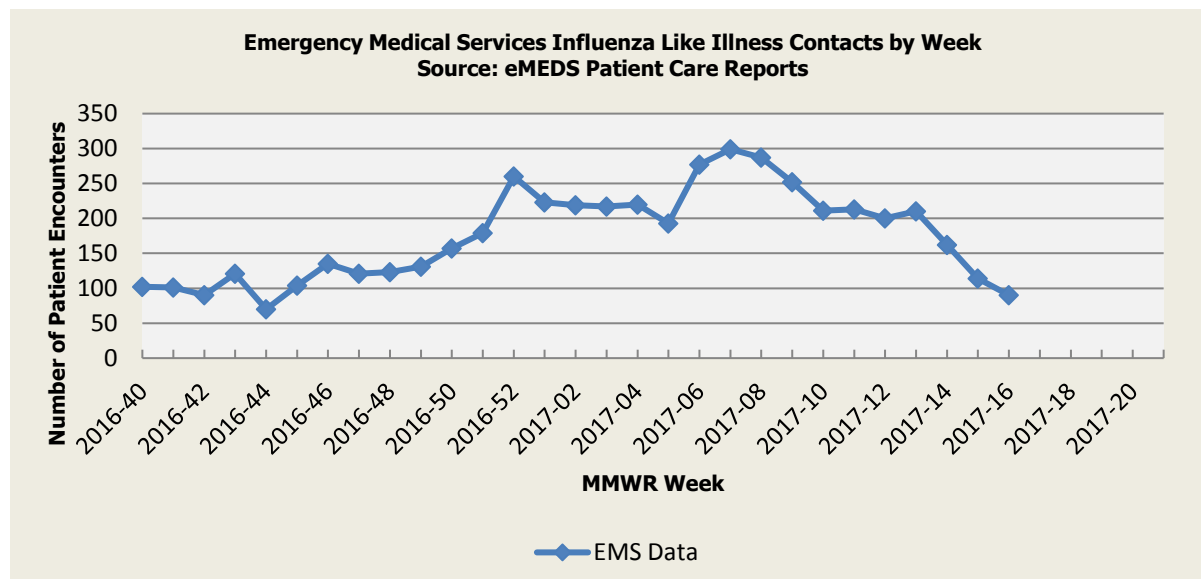
SYNDROMIC INFLUENZA SURVEILLANCE

Seasonal Influenza reporting occurs from MMWR Week 41 through MMWR Week 20 (October through May). Seasonal Influenza activity for Week 16 was: Local Geographic Spread with Minimal Intensity.



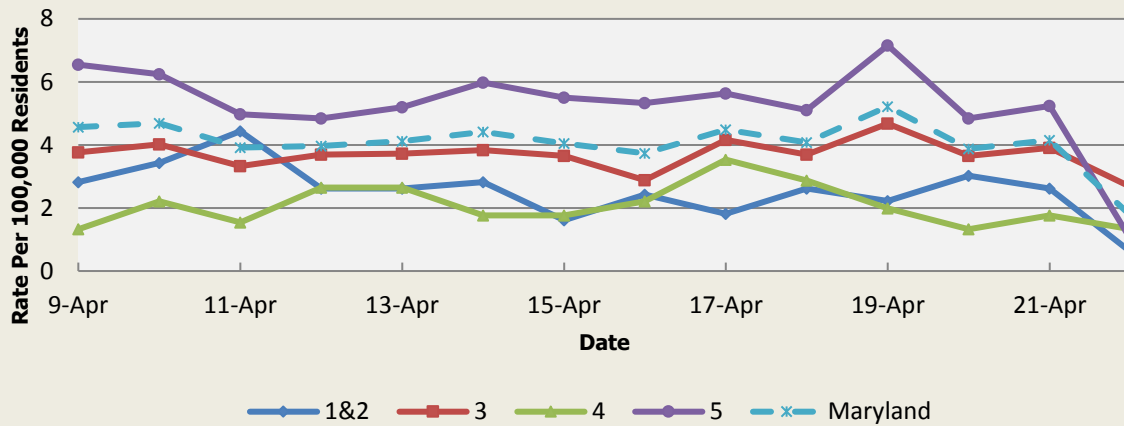
Influenza-like Illness Baseline Data Week 1 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	234.78	313.55	287.68	271.92	289.10
Median Rate*	7.66	9.63	9.05	8.51	9.00

* Per 100,000 Residents



Disclaimer on eMEDS flu related data: These data are based on EMS Pre-hospital care reports where the EMS provider has selected "flu like illness" as a primary or secondary impression of a patient's illness. This impression is solely based on the signs and symptoms seen by the provider, not on any diagnostic tests. Since these numbers do not include all primary or secondary impressions that may be seen with influenza the actual numbers may be low. These data are reported for trending purposes only.

Over-the-Counter Medication Sales Related to Influenza Rate Per 100,000 Residents

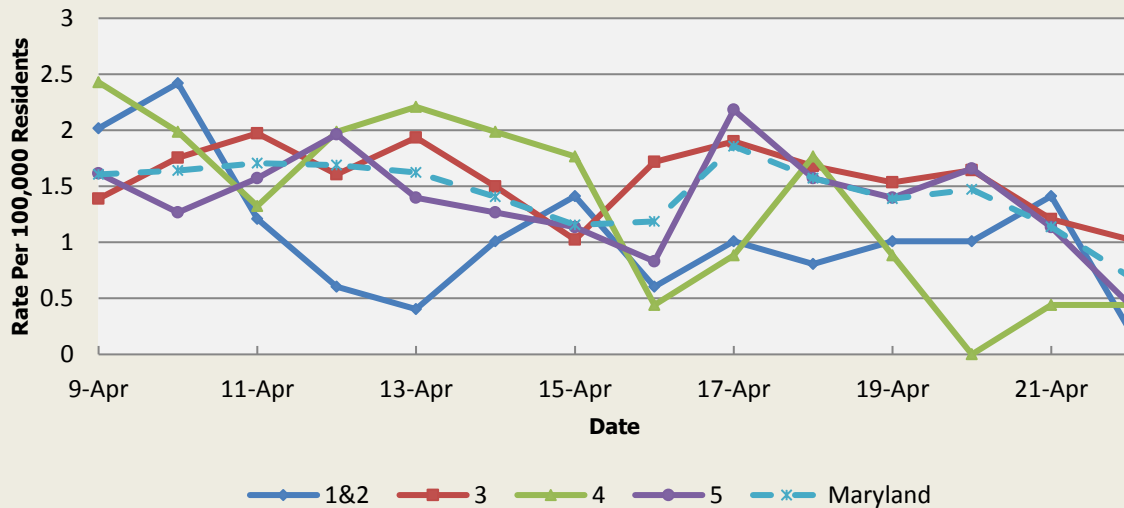


There was not an appreciable increase above baseline in the rate of OTC medication sales during this reporting period.

OTC Sales Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.78	4.92	2.74	8.47	6.02
Median Rate*	3.23	4.38	2.43	8.03	5.52

* Per 100,000 Residents

Over-the-Counter Thermometer Sales Rate Per 100,000 Residents



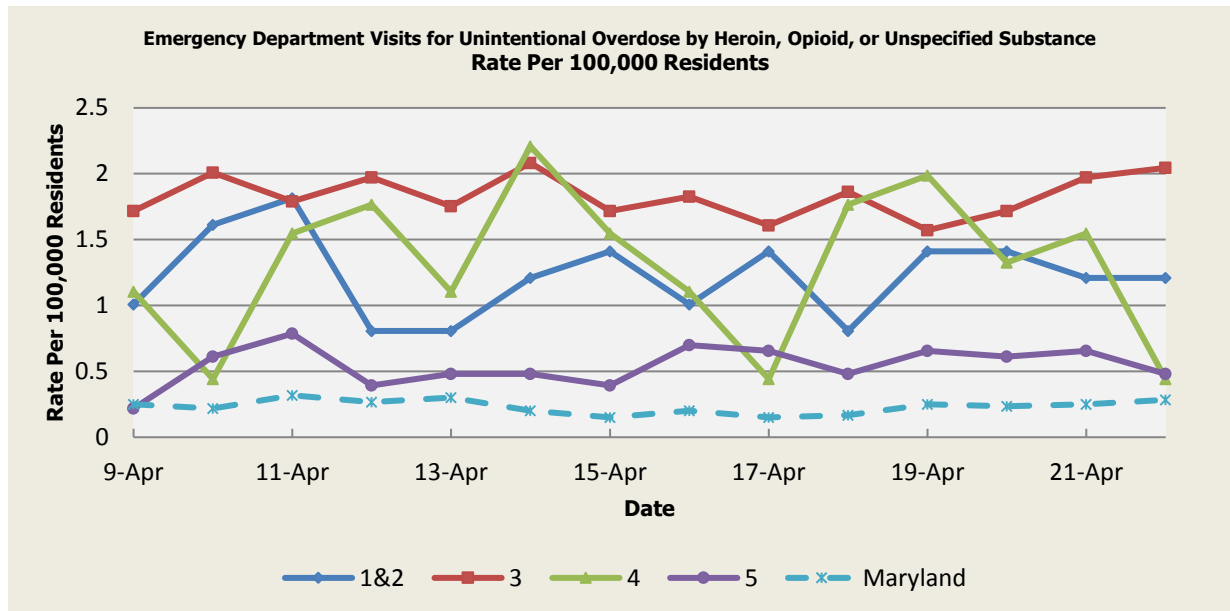
There was not an appreciable increase above baseline in the rate of OTC thermometer sales during this reporting period.

Thermometer Sales Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.38	3.24	2.51	4.34	3.61
Median Rate*	3.02	3.03	2.43	4.06	3.36

* Per 100,000 Residents

SYNDROMIC OVERDOSE SURVEILLANCE

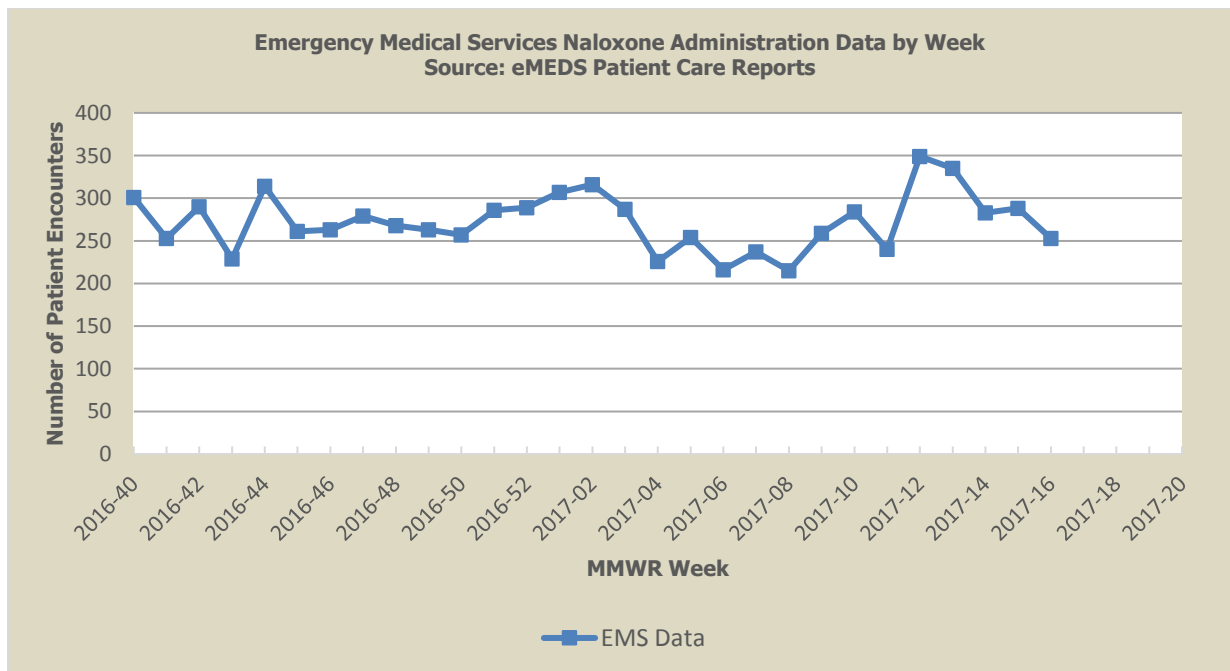
The purpose of this section is to characterize non-fatal ED visit trends for acute unintentional overdose by Heroin, Opioid or Unspecified substance among Maryland residents captured by ESSENCE data, including chief complaint and discharge diagnosis. ED visits that are identified as unintentional overdose by Heroin, Opioid or Unspecified substance include those with medical and non-medical use of a prescription Opioid or where the substance is not specified, given evidence that the majority of fatal overdoses are Opioid-related.



Disclaimer on ESSENCE Overdose related data: ESSENCE chief complaint and discharge diagnosis query for overdose-related illness includes but is not limited to the following terms: heroin, opioid, speedball, dope, fentanyl, naloxone, narcan, and overdose.

Non-fatal Overdose ED Visit Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.33	0.42	0.37	0.15	0.30
Median Rate*	1.01	1.32	1.10	0.48	0.99

* Per 100,000 Residents



Disclaimer on eMEDS naloxone administration related data: These data are based on EMS Pre-hospital care reports where the EMS provider has documented that they administered naloxone. The administration of naloxone is based on the patient's signs and symptoms and not on any diagnostic tests. These data are reported for trending purposes only.

PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is ALERT. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

Influenza A (H7N9) is one of a subgroup of influenza viruses that normally circulate among birds. Until recently, this virus had not been seen in people. However, human infections have now been detected. As yet, there is limited information about the scope of the disease the virus causes and about the source of exposure. The disease is of concern because most patients have been severely ill. There is no indication thus far that it can be transmitted between people, but both animal-to-human and human-to-human routes of transmission are being actively investigated.

Alert phase: This is the phase when influenza caused by a new subtype has been identified in humans. Increased vigilance and careful risk assessment, at local, national and global levels, are characteristic of this phase. If the risk assessments indicate that the new virus is not developing into a pandemic strain, a de-escalation of activities towards those in the interpandemic phase may occur. As of April 20, 2017, the WHO-confirmed global total (2003-2016) of human cases of H5N1 avian influenza virus infection stands at 858, of which 453 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 53%.

AVIAN INFLUENZA:

H5N1 AVIAN INFLUENZA (IRAN): 24 April 2017, Dr. Mehdi Khalaj, Head, Iran Veterinary Organization (IVO), Ministry of Jihad-e-Agriculture, Tehran, Iran reported a January outbreak backyard ducks in a house. Species / Susceptible / Cases / Deaths / Destroyed / Slaughtered Birds / 230 / 39 / 10 / 220 / 0 Read More: <https://www.promedmail.org/post/4991379>

H5N8 AVIAN INFLUENZA (SWEDEN): 26 April 2017, An outbreak of H5N8 bird flu has been detected at a hen farm in eastern Sweden, the country's board of agriculture reported on Tue 25 Apr 2017. The agriculture board said in a statement, mentioned the imposition of a 3 km [approx. 1.8 mi] safety perimeter, banning visits to the farm, and destruction of all or parts of the hen population as measures taken to contain the outbreak. Read More: <https://www.promedmail.org/post/4997434>

H5N8 AVIAN INFLUENZA (TURKEY): 28 April 2017, Turkish officials have launched a bird flu investigation in a Central Anatolian town; one day after authorities confirmed an incident in the country's north, quarantining a village. The inspection was launched in the town of Sazlıca in Niğde after an animal breeder reported 100 chicken deaths on his farm, according to Doğan news agency. Read More: <http://www.promedmail.org/post/5001719>

HUMAN AVIAN INFLUENZA:

AVIAN INFLUENZA, HUMAN-ANIMAL INTERFACE (WHO): 23 April 2017

- New infections: Since the previous update, new human infections with influenza A(H7N9) and A(H9N2) viruses were reported.
- Risk assessment: The overall public health risk from currently known influenza viruses at the human-animal interface has not changed, and the likelihood of sustained human-to-human transmission of these viruses remains low. Further human infections with viruses of animal origin are expected.
- IHR compliance: All human infections caused by a new influenza subtype are required to be reported under the International Health Regulations (IHR, 2005). This includes any animal and non-circulating seasonal influenza viruses. Information from these notifications is critical to inform risk assessments for influenza at the human-animal interface. Read More: <https://www.promedmail.org/post/4986981>

H7N9 AVIAN INFLUENZA (CHINA): 24 April 2017, 35 new cases of avian influenza have been reported since the last update in Jilin, Hebei, Hunan, and Guangxi provinces in China with 10 fatalities. Read More: <https://www.promedmail.org/post/4989441>

[There were no reports of human cases of avian influenza in the United States at the time that this report as compiled.]

NATIONAL DISEASE REPORTS

SALMONELLOSIS (MISSOURI): 25 April 2017, The number of confirmed cases of salmonella in a central Missouri region has reached 36 according the Cole County Health Department. Kristi Campbell, the department's director, said 14 of those that contracted the infection ate at the same restaurant and that the Missouri Department of Health and Senior Services is working with the Jefferson City Environmental Health Division to investigate that establishment. Read More: <http://www.promedmail.org/post/4993475>

BOTULISM (CALIFORNIA): 29 April 2017, Tea made from deer antlers may have sickened 2 Orange County residents with botulism, a serious illness caused by a [toxin produced by a] bacterium that can cause paralysis, breathing difficulty and is potentially deadly. Read More: <http://www.promedmail.org/post/5003486>

INTERNATIONAL DISEASE REPORTS

SHIGELLOSIS (INDIA): 25 April 2017, Researchers have found that the *Shigella* bacterium that causes severe diarrhea and even deaths in children has developed resistance to the powerful drug, ciprofloxacin. Shigellosis strains have emerged and they are not responding to ciprofloxacin. City doctors say indiscriminate use of antimicrobials has led to the bacteria developing resistance to the powerful drug. The caution by city health experts comes in the wake of CDC of USA issuing a warning of emerging strains of *Shigella* bacteria with reduced susceptibility to ciprofloxacin. Incidentally, ciprofloxacin is the main antimicrobial drug used for treatment of shigellosis. Read More: <http://www.promedmail.org/post/4994414>

HANTAVIRUS (CHILE): 26 April 2017, A 29 year old woman died of [a] hantavirus [infection] in the Concepción Regional Hospital. The patient had been sent from Lebu, Arauco province, where she become infected since her residence is located near rural sectors of the area. Read More: <http://www.promedmail.org/post/4997443>

E. COLI EHEC (CANADA): 27 April 2017, Various brands of pie and tart shells are being recalled due to the presence of *E. coli*. The Canadian Food Inspection Agency says the shells are produced by Edmonton-based Harlan Bakeries and were sold across Canada. The Deep Dish Pie Shells, Sweetened Tart Shells and Tart Shells are sold under the Great Value, Apple Valley, Western Family and No Name brands. Read More: <http://www.promedmail.org/post/4999950>

LEGIONELLOSIS (CHINA): 27 April 2017, Casino resort the Parisian Macao located in Macau's Cotai district has been linked by the city's Health Bureau to 3 confirmed cases of Legionnaires' disease. Sands China Ltd the owner and operator of the Parisian Macao confirmed to GGRAsia it had been contacted by the Macau health authorities about the matter. Read More: <http://www.promedmail.org/post/4998033>

FOODBORNE ILLNESS (FRANCE): 28 April 2017, More than 300 students were taken ill on [Thu 27 Apr 2017] due to suspected food poisoning in Rouen city in France, regional authorities said. Children, aged between 3 and 12, reported symptoms of vomiting and nausea after eating school lunches prepared at the same central canteen, Xinhua news agency reported. Read More: <http://www.promedmail.org/post/5001309>

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://preparedness.dhmm.maryland.gov/> or follow us on Facebook at www.facebook.com/MarylandOPR.

More data and information on influenza can be found on the DHMM website:
<http://phpa.dhmm.maryland.gov/influenza/fluwatch/Pages/Home.aspx>

Please participate in the Maryland Resident Influenza Tracking System (MRITS): <http://flusurvey.dhmm.maryland.gov>

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail us. If you have information that is pertinent to this notification process, please send it to us to be included in the routine report.

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Appendix 1: ESSENCE Syndrome Definitions and Associated Category A Conditions

Syndrome	ESSENCE Definition	Category A Conditions
Botulism-like	(Botulism or (DifficultyFocusing and DifficultySpeaking) or (DifficultySpeaking and DifficultySwallowing) or (DifficultySwallowing and DifficultyFocusing) or DoubleVision or FacialParalysis or GuillainBarre or Ptosis) and not GeneralExclusions	Botulism
Fever	(Chills or (FeverPlus and (Drowsiness or Seizure)) or FeverOnly or SepsisGroup or ViralSyndrome) and not GeneralExclusions	N/A
Gastrointestinal	(AbdominalCramps or AbdominalPainGroup or Diarrhea or FoodPoisoning or Gastroenteritis or GIBleeding or Peritonitis or Vomiting) and not (GeneralExclusions or Gynecological or Obstetric or Reproductive or UrinaryTract)	Anthrax (gastrointestinal)
Hemorrhagic Illness	(FeverOrChills and (AcuteBloodAbnormalitiesGroup or BleedingFromMouth or BleedingGums or GIBleeding or Hematemesis or Hemoptysis or Nosebleed or Petechiae or Purpura)) and not GeneralExclusions	Viral Hemorrhagic Fever
Localized Lesion	(Boils or Bump or Carbuncle or DepressedUlcer or Eschar or Furuncle or InsectBite or SkinAbscess or (SkinSores and not AllOverBody) or SkinUlcer or SpiderBite) and not (GeneralExclusions or Decubitus or Diabetes or StasisUlcer)	Anthrax (cutaneous) Tularemia
Lymphadenitis	(BloodPoisoning or Bubo or CatScratchDisease or SwollenGlands) and not GeneralExclusions	Plague (bubonic)
Neurological	(([Age<75] and AlteredMentalStatus) or (FeverPlus and (Confusion or Drowsiness or Petechiae or StiffNeck)) or Delirium or Encephalitis or Meningitis or UnconsciousGroup) and not GeneralExclusions	N/A
Rash	(ChickenPox or Measles or RashGeneral or Roseola or (Rubella and not Pregnancy) or Shingles or (SkinSores and AllOverBody) or Smallpox) and not GeneralExclusions	Smallpox
Respiratory	(Anthrax or Bronchitis or (ChestPain and [Age<50]) or Cough or Croup or DifficultyBreathing or Hemothorax or Hypoxia or Influenza or Legionnaires or LowerRespiratoryInfection or Pleurisy or Pneumonia or RespiratoryDistress or RespiratoryFailure or RespiratorySyncytialVirus or RibPain or ShortnessOfBreath or Wheezing) and not (GeneralExclusions or Cardiac or (ChestPain and Musculoskeletal) or Hyperventilation or Pneumothorax)	Anthrax (inhalational) Tularemia Plague (pneumonic)
Severe Illness or Death	CardiacArrest or CodeGroup or DeathGroup or (Hypotension and FeverPlus) or RespiratoryArrest or SepsisGroup or Shock	N/A

Appendix 2: Maryland Health and Medical Region Definitions

Health and Medical Region	Counties Reporting to ESSENCE
Regions 1 & 2	Allegany County Frederick County Garrett County Washington County
Region 3	Anne Arundel County Baltimore City Baltimore County Carroll County Harford County Howard County
Region 4	Caroline County Cecil County Dorchester County Kent County Queen Anne's County Somerset County Talbot County Wicomico County Worcester County
Region 5	Calvert County Charles County Montgomery County Prince George's County St. Mary's County

